

**Application for an Amendment
Submitted by Graymont Western US Inc.
For Cricket Mountain Mine**

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1. **Applicant Name and Address:** Graymont Western US Inc. 3950 South 700 East, Suite 301 Salt Lake City, UT 84107

2. **Authorized Agent:** Mr. Robert Robison, Director, Geologic Services Graymont Western US Inc. 801-716-2629

3. **Applicant:** Graymont Western US Inc.

4. **Applicant Status:** Corporation

5. **Application:** New authorization amendment

6. **Citizenship:** A Utah Corporation

7. **Project Description:**

Graymont Western US Inc. (Graymont) is requesting an amendment from the State of Utah School and Institutional Trust Lands Administration (SITLA) to re-locate two proposed growth media stockpiles along the approved Big Sage Road easement. Additionally, these re-located stockpiles will add approximately 2.0 acres to the total proposed mine disturbance. Figure 1 shows the project location, the original layout of the growth media stockpiles, and the newly proposed layout and disturbance for the re-located stockpiles along the Big Sage Road. Table 1 details the proposed land disposition.

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Table 1 – Land disposition – Big Sage Road growth media stockpiles

Township	Range	Sections	Qtr/Qtr Section	Land Status
T 21 S	R 10 W	35	SE1/4 NE1/4	Graymont Private
T 21 S	R 10 W	2	NE1/4 NE1/4	Utah State Trust Lands – Graymont Lease

State file number M/027/006

8. **Maps:** Map showing updated land disturbance and stockpile relocation is attached.

9. **Operation Plan:** Amendment will increase proposed growth media stockpile disturbance by approximately 2.0 acres

10. **Impact Assessment:**

Potential surface and subsurface impacts relating to this amendment are expected to be minimal. Both the original and newly proposed stockpile locations are within the boundaries of the biological and wildlife studies conducted prior to construction of the Big Sage Road. No adverse biological or wildlife impacts were determined. An increase of approximately 2.0 acres associated with this work is expected to have minimal impact on the surface.

11. **Reclamation and Revegetation**

Upper soil layers will be salvaged for use as growth media during reclamation. Where feasible, vegetation growing on areas containing salvageable soils will be removed and stored in the growth media stockpiles within the easement to contribute organic matter to the soils to enhance further revegetation. It was originally proposed that there would be three such growth media stockpiles, with a proposed total disturbance of 1.5 acres. However, due to the amount of salvageable soil being generated, an increase of 2.0 acres (to 3.5 acres total) is requested. Ancillary disturbance associated with construction will be reclaimed.

12. **Variance:** No variance is requested as these stockpiles are part of the approved Big Sage Road easement.

13. **Surety:** No additional surety should be needed for this work. Additional disturbance is minimal and the amount of work required to reclaim the area has not significantly increased.

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I (we) hereby make application, pursuant to Title 53C, as amended, and Trust Lands Administration rule, for an amendment on the following described State lands situated in Millard County, for a term of 30 year.

Corporate Tax I.D. Number: 87-0335998


Applicant's Signature

Director, Geologic Services
Title

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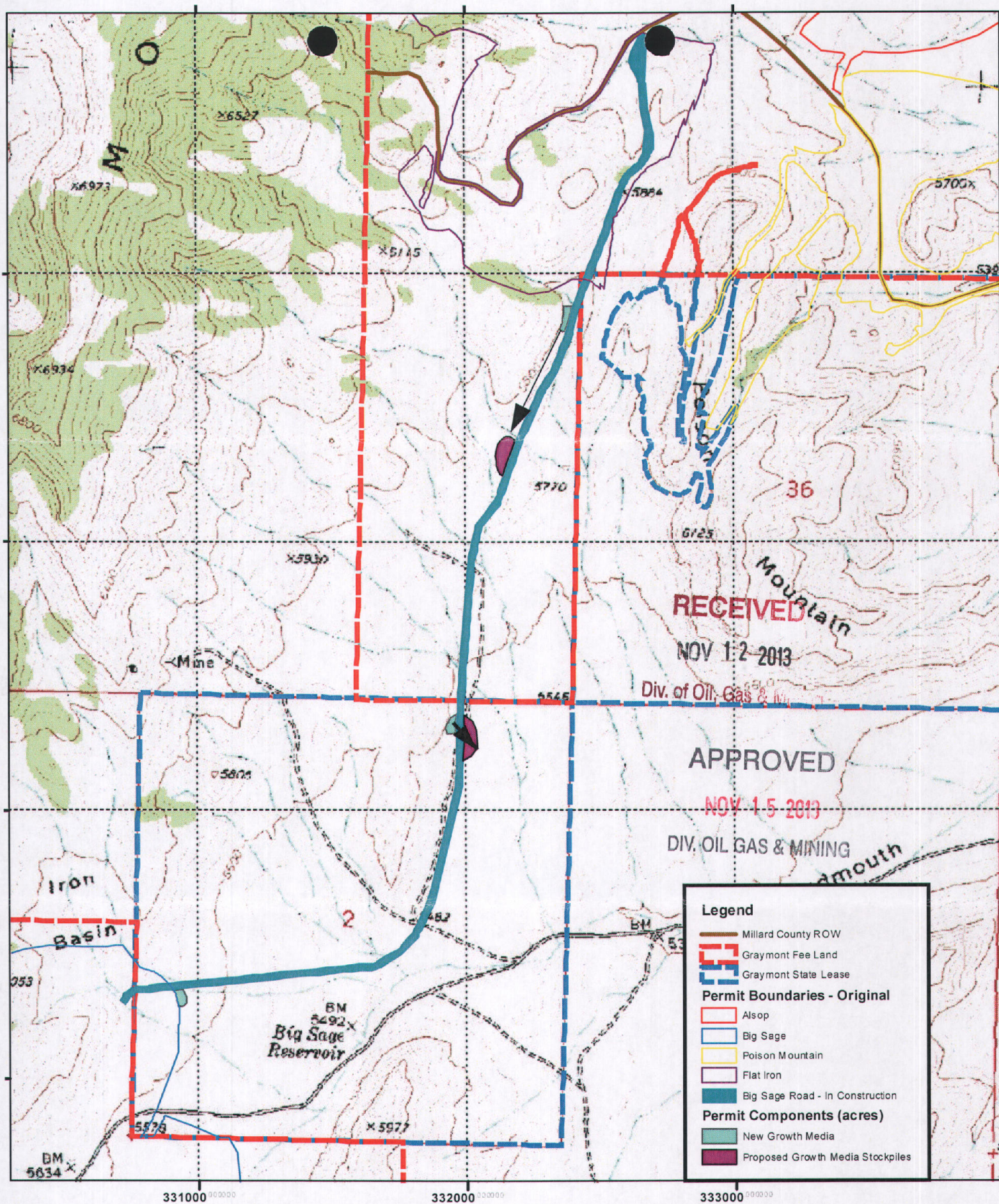


Figure 1: Big Sage Road Updated Growth Media Stockpiles

UTM NAD 1927 Zone 12 North

Topographic Base Map-USGS 7.5 minute series

October 11, 2013

Graymont Western US Inc.

1:18,000

0 0.125 0.25 0.5 0.75 1 Miles



This amendment is being submitted in regards to the Cricket Mountain Mine, operated by Graymont Western US, Inc, file number M/027/006. The latest approved revision to M/027/006 is dated January 2010.

The previous permitted acreage for disturbance was 1,702.7 acres, with the partial surety acreage of 1311.2 acres. The previous full surety bond amount was \$5,144,090, and the partial, or actual, surety was \$3,885,790. The difference between the full surety and the partial surety was \$1,258,299. The addition of the Big Sage road will increase the total surety to \$5,369,990.

The Big Sage road project covers a total of 35.9 acres; this includes growth media piles placed next to the road and the increased width area noted in the easement. In accordance with the easement on file the road will have a running width of 100 feet and a total disturbance of approximately 120 feet, with a length of approximately 11,586 feet.

The total bond increase just for the road; which includes the eight additional culverts, is \$225,900 with \$201,244 for the road and \$24,656 for the culverts. A map of the proposed road construction has been included as well as the proposed study area for wildlife. The increased cost of the culverts was calculated by increasing the number of culverts in the spreadsheet used to calculate equipment and labor costs for the road.

Construction of the Big Sage road will be performed in the manner specified on page 16 of the Notice of Intention to Amend Mining Operations: Big Sage document submitted previously to the state with further elaboration in the easement document. The road will be reclaimed as noted in the NOI on page 33, and in accordance with the Utah Administrative Code R647.

The road will be treated in the same manner as other haul roads for dust suppression, as noted in the Fugitive Dust Control plan submitted in the NOI documents. The specific treatment of the road for dust is detailed on page 8 of the Fugitive Dust Control plan. In addition a wildlife and raptor survey will be completed in the area expected to be disturbed by the road, with a buffer area included, and a study report will be provided in future documentation. The raptor study will be conducted at an extent of one half mile from the road centerline.

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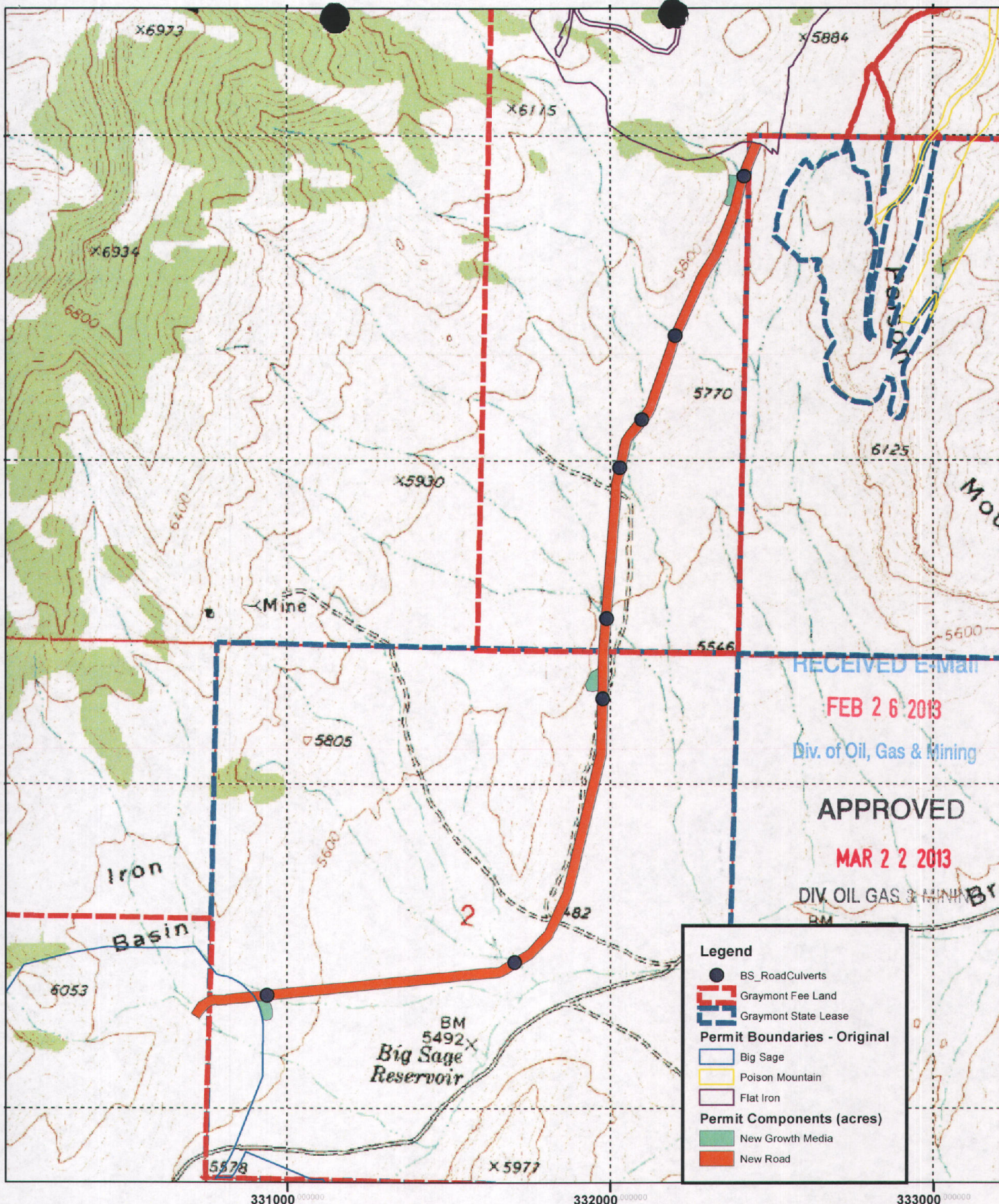
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Big Sage Road Permit Area

UTM NAD 1927 Zone 12 North

Topographic Base Map-USGS 7.5 minute series

October 16, 2012

Graymont Western US Inc.

1:15,000

0 500 1,000 2,000 3,000 4,000 Feet



The following are the calculations for the total Big Sage road.

CRICKET MOUNTAIN PROJECT - BIG SAGE					
Haul/Access Roads			Spreadsheet D		
Facility Name	Acres	Revised: 2/26/2013			
Haul/Access Roads	19.8				
Interior Roads	15.3	* Includes 10.7 acres from the Facility Area and 4.6 acres from the quarry areas.			
	35.9				
Total	71				
		Earthwork			Revegetation
	Contour/Regrade	Growth Media Replacement	Rip/Scarify	Seed	TOTAL
Equipment	(1)	(2) & (5)	(3)	(4)	-
Quantity	231,617 CY	57,273 CY (7)	71 AC	71 AC	-
Production Rate	716 CY/HR	624 CY/HR	1.39 AC/HR	1.4 AC/HR	-
Time Required	324 HR	92 HR	51 HR	52 HR	-
Unit Cost					
Equipment	337.56 \$/hr	1,069.41 \$/hr	182.90 \$/hr	\$64.50 \$/hr	-
Labor	85.79 \$/hr	300.26 \$/hr	42.89 \$/hr	\$13.44 \$/hr	-
Seed	0.00 \$/ac	0.00 \$/ac	0.00 \$/ac	\$79.45 \$/ac	-
Cost/Unit Area (\$/ac)	-	-	\$162.18	\$137	-
Cost/Unit Volume (\$/cy)	\$0.59	\$2.20	-	-	-
Equipment Cost	\$109,369	\$98,385	\$9,328	\$3,354	\$220,436
Labor Cost	\$27,795	\$27,624	\$2,188	\$699	\$58,306
Seed Cost	\$0	\$0	\$0	\$5,641	\$5,641
TOTAL COSTS	\$137,164	\$126,009	\$11,515	\$9,694	\$284,383
Manpower Sub-total		Equipment Sub-total		Material Costs	
Earthwork	\$57,607	Earthwork	\$217,082	Earthwork	Total Cost (\$/AC): \$4,005
Revegetation	\$699	Revegetation	\$3,354	Revegetation	\$5,641
					71 plan view acres
(1) D9R Dozer, 1 each; 16H Motor Grader, 1 each.					
(2) 631 Scraper, 4 each; 16H Motor Grader, 1 each; 8000 gal Water Wagon, 1 each; D9R Dozer, 1 each.					
(3) D9R Dozer, 1 each.					
(4) Broadcast Seeding					
(5) Growth media placement volume based on 6 inch depth.					

New Culvert Cost

B) CULVERTS					
CULVERT REMOVAL	No. Culverts	\$ equipment/culvert	\$ labor/culvert	TOTAL CULVERT COST:	
(2 laborers, 1 operator, 1 CAT 325 Excavator)	12	\$767.27	\$ 1,544.19	\$	27,737.55
Assume 4 hours per culvert based on RS Means Heavy Construction, 2009, removal rates for 36 inch diameter culvert, 024113-40-0180.					

Old Culvert Cost

B) CULVERTS					
CULVERT REMOVAL	No. Culverts	\$ equipment/culvert	\$ labor/culvert	TOTAL CULVERT COST:	
(2 laborers, 1 operator, 1 CAT 325 Excavator)	4	\$255.76	\$ 514.73	\$	3,081.95
Assume 4 hours per culvert based on RS Means Heavy Construction, 2009, removal rates for 36 inch diameter culvert, 024113-40-0180.					

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Big Sage haul road volume calculations.

CRICKET MOUNTAIN PROJECT - BIG SAGE Road Regrade Volumes

Spreadsheet D1

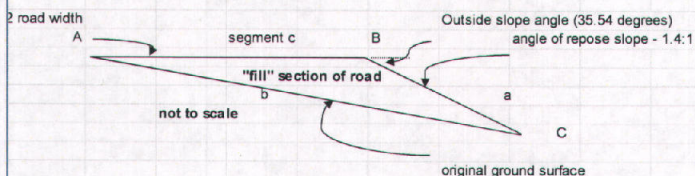
Revised: 2/26/2013

Input Parameters

Outside slope	35.54 degrees	1.4 slope
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Segment Length (feet)	Segment Width (feet)	Section Original Ground Surface Slope	Slope Angle A (degrees)	Crest Angle B (degrees)	Intersecti on Angle C (degrees)	Original surface segment length (feet)	Fill Triangle Area (1) (square feet)	Segment Acres	Total Segment Width (feet) (2)	Segment Regrade Volume (cubic feet)	Segment Regrade Volume (cubic yards)
Roads:											
1,500	175	25.0%	14.04	144.46	21.50	138.76	1,472.4	9.27	269.2	2,208,534	81,798
1,000	350	0.0%	0.00	144.46	35.54	175.00	0.0	8.03	350.0	0	0
400	175	25.0%	14.04	144.46	21.50	138.76	1,472.4	2.47	269.2	588,942	21,813
Roads:											
500	200	12.5%	7.13	144.46	28.41	122.16	757.6	2.78	242.4	378,788	14,029
11,086	100	12.5%	7.13	144.46	28.41	61.08	189.4	30.85	121.2	2,099,621	77,764
Roads:											
4,400	80	20.0%	11.31	144.46	24.23	56.66	222.2	11.22	111.1	977,778	36,214
2,250	80	0.0%	0.00	144.46	35.54	40.00	0.0	4.13	80.0	0	0
								68.75			231,617

- (1) The (triangle representing the) fill portion of a road cross-section will be placed back into the cut portion of the road (not shown) to return to original contour. The determination of that area represents the sum of the earthmoving required for that segment.
- (2) Roughly approximated by the projection of segment b (the original ground surface) times two sides (the width of the cut half of the road is slightly overstated).



A = atan (original slope)
B = 180 degrees - atan (1.4/1)
C = 180 - A - B

states that: $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$ are all equivalent

Then $b = (\sin B / \sin C) * c$

The law of sines further states that the area of the triangle = $0.5 * cb \sin A$

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New Total Surety Amount

GRAYMONT WESTERN U.S., INC. CRICKET MOUNTAIN PROJECT RECLAMATION COST SUMMARY					
SPREADSHEET/PROJECT COMPONENT	EQUIPMENT	LABOR	MATERIALS	TOTALS	PLAN VIEW ACRES
A Overburden/Fines Piles	\$558,075	\$153,277	\$26,908	\$738,259	452.0
B Yards and Stockpiles	\$305,371	\$81,150	\$15,120	\$401,641	190.3
C Quarries	\$1,276,478	\$352,973	\$65,124	\$1,694,575	993.7
D Haul/Access Roads	\$300,469	\$79,418	\$7,977	\$387,864	100.4
E Miscellaneous	\$66,511	\$82,828	\$12,880	\$162,218	2.2
F Concrete Foundation Demolition	\$10,777	\$2,071	\$0	\$12,848	NA
G Building Demolition and Disposal	\$91,584	\$70,449	\$0	\$162,033	NA
Subtotal	\$2,609,265	\$822,166	\$128,009	\$3,559,438	1738.6
General Site Clean-Up (1% of total: RS Means, 2007, 017413.200040, Site Work and Landscape Cost Data, 26th Edition)				\$35,594	
Mobilization/Demobilization				\$118,656	
Total Direct Costs				\$3,713,688	
Contractor Overhead and Profit (10%)				\$371,369	
Contingency (10%)				\$371,369	
Total with Indirect Costs				\$4,456,426	
Year 1 Escalation (3.8%)				\$169,344	
Year 2 Escalation (3.8%)				\$175,779	
Year 3 Escalation (3.8%)				\$182,459	
Year 4 Escalation (3.8%)				\$189,392	
Year 5 Escalation (3.8%)				\$196,589	
GRAND TOTAL				\$5,369,990	1,738.6
				\$/acre	\$3,088.71
Total Proposed Bond				\$5,369,990	

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